

REMARKS/ARGUMENTS

Applicant has carefully reviewed and considered the Office Action mailed on October 5, 2009, and the references cited therewith.

Claims 55, 65, 72, 81, 85, and 87 are amended, claims 1-54, 57-60, 63-64, and 78-80 are canceled, and no claims are added; as a result, claims 55-56, 61-62, 65-77, and 81-89 are now pending in this application.

Examiner Interview Summary

Applicant thanks Examiner Severson for participating in a telephone interview on November 9, 2009. During the interview, Applicant and the Examiner discussed a proposed amendment to independent claim 55 which could overcome the Hatchman reference. Applicant and the Examiner appeared to agree that the proposed amendment would overcome the Hatchman reference if it was clarified that the first and second patterns recited therein are different.

§ 102 Rejection of the Claims

Claims 55-56, 61-62, 65, 67, 72-77, 81, and 85-88 were rejected under 35 USC § 102(b) as being anticipated by Hachtman, et al. (U.S. Patent No. 5,645,559). Applicant respectfully traverses the rejection as follows.

Independent claim 55, as currently amended, presently recites:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery along the stent-underlying portion, wherein the one or more members for engaging the stent inner periphery comprises one or more radial protuberances that protrude from the inner core and lie along the stent-underlying portion of the stabilizer, wherein the one or more radial protuberances comprise at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, the rings

in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern.

Support for the amendment can be found in Applicant's specification as originally filed at, for example, page 13, lines 13-31, and Figures 3C, 3D, and 3E, among other locations.

The Hachtman reference appears to teach a stent delivery device that includes a sleeve 54 that surrounds an inner tube 26. (Column 4, lines 47-48; Figure 5). The Hachtman reference appears to teach that radiopaque markers 58, 60, 62, and 64 surround sleeve 54. (Column 5, lines 2-3; Figure 5).

The Hachtman reference, however, does not teach that radiopaque markers 58, 60, 62, and 64 comprise at least two sets of markers about sleeve 54, the first set of markers spaced in a first pattern and the second set of markers spaced in a second pattern that is different than the first pattern. That is, the Hachtman reference does not teach that the markers are spaced in different patterns along sleeve 54. Rather, Figure 5 of the Hachtman reference appears to show that the markers are spaced in one, e.g., the same, pattern along sleeve 54. That is, Figure 5 of the Hachtman reference appears to show that the spacing between each marker is equal.

Hence, Applicant respectfully submits that the Hachtman reference does not teach:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery along the stent-underlying portion, wherein the one or more members for engaging the stent inner periphery comprises one or more radial protuberances that protrude from the inner core and lie along the stent-underlying portion of the stabilizer, wherein the one or more radial

protuberances comprise at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern

as recited in independent claim 55, as currently amended.

Similarly, independent claim 65, as currently amended, presently recites:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern[.]

Independent claim 72, as currently amended, presently recites:

a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stent-underlying portion having a distal end adapted to be positioned adjacent the distal end of the stent, a proximal end adapted to be positioned adjacent the proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members, each of the one or more members comprising one or more radial protuberances that protrude from the inner core, wherein the one or more radial protuberances comprise at least two sets of rings about the inner core that engage the stent inner periphery, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first

pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern.

Independent claim 81, as currently amended, presently recites:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and one or more members for engaging the stent inner periphery, wherein the one or more members for engaging the stent inner periphery comprises at least two sets of rings extending radially outwardly from an outer surface of the stabilizer adapted to frictionally engage the stent inner periphery along the stent-underlying portion without protruding through interstitial openings in the stent inner periphery, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern.

Independent claim 85, as currently amended, presently recites:

A stabilizer for deployment of a stent in a distal location inside a body lumen from a proximal access location outside the body, the stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of the stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion proximal end to the portion distal end, the stabilizer comprising a non-inflatable inner core having a first diameter adapted to underlie the stent, a proximal shoulder not underlying the stent located adjacent the proximal end of the stent and having a second diameter, and at least one distal protuberance underlying the stent and protruding from the inner core for engaging the stent inner periphery without protruding through interstitial openings in the stent inner periphery when the stent is disposed over

the stabilizer in a predeployed condition, wherein the at least one distal protuberance comprises at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern.

Additionally, independent claim 87, as currently amended, presently recites:

a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stent-underlying portion having a distal end adapted to be positioned adjacent the distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion proximal end to the portion distal end, the stabilizer further comprising a non-inflatable inner core having a first diameter underlying the stent, a proximal shoulder not underlying the stent located adjacent the proximal end of the stent and extending to a proximal end of the stabilizer, and having a second diameter greater than the first diameter, and at least one member underlying the stent and protruding from the inner core and engaging the stent inner periphery without protruding through interstitial openings in the stent inner periphery, wherein the at least one member comprises at least two sets of rings about the inner core, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern.

As such, Applicant respectfully submits that the Hachtman reference does not teach each and every element and limitation of independent claims 55, 65, 72, 81, 85, and 87, as currently amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection of independent claims 55, 65, 72, 81, 85, and 87, as currently amended, as well as those claims that depend therefrom.

§103 Rejection of the Claims

Claim 66 was rejected under 35 USC § 103(a) as being unpatentable over Hachtman, et al. (U.S. Patent No. 5,645,559) in view of Ravenscroft, et al. (U.S. Patent No. 5,480,423). Applicant respectfully traverses the rejection as follows.

Claim 66 depends from independent claim 65. For the reasons stated above, Applicant respectfully submits that independent claim 65, as currently amended, is in condition for allowance in light of the Hachtman reference. From Applicant's review of the Ravenscroft reference, the Ravenscroft reference does not cure the deficiencies of the Hachtman reference. That is, the Hachtman and Ravenscroft references, alone or in combination, do not teach, suggest, or render obvious:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern

as recited in independent claim 65, as currently amended.

The Ravenscroft reference appears to teach a stent delivery device that includes a catheter body. (Column 4, lines 15-17; Figure 1). The Ravenscroft reference appears to teach that the catheter body includes three radiopaque markers: proximal marker 9 located at the proximal end of the stent when the stent is compacted, central marker 11 located at the proximal end of the stent when the stent is expanded, and distal marker 13 located at the distal end of the stent. (Column 4, lines 62-66; Figures 1 and 2a-2e).

The Ravenscroft reference, however, does not teach that radiopaque markers 9, 11, and 13 comprise at least two sets of markers which each include at least two markers, wherin the markers in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the markers in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern. Rather, the Ravenscroft reference appears to teach that markers 9, 11, and 13 are located at either the proximal or distal end of the stent, e.g., none of markers 9, 11, or 13 are located along the length of the stent between the distal and proximal ends of the stent. Further, the Ravenscroft reference appears to teach that only one marker, e.g., marker 13, is located at the distal end of the stent.

Hence, Applicant respectfully submits that the Ravenscroft reference does not teach, suggest, or render obvious:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern

as recited in independent claim 65, as currently amended.

As such, Applicant respectfully submits that the Hachtman and Ravenscroft references, alone or in combination, do not teach, suggest, or render obvious each and every element and limitation of independent claim 65, as currently amended.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claim 66.

Claims 68-71 were rejected under 35 USC § 103(a) as being unpatentable over Hachtman, et al. (U.S. Patent No. 5,645,559). Applicant respectfully traverses the rejection as follows.

Applicant notes that only a single reference has been cited in support of the 103 rejection of claims 68-71. Applicant respectfully submits that the Hachtman reference does not teach, suggest, or render obvious claims 68-71 because each and every element and limitation of claims 68-71 is not explicitly or implicitly stated, unless combined with another reference or the Examiner's personal knowledge. In such case, Applicant respectfully requests that the Examiner provide a specific document or an affidavit to support an obviousness rejection. Nonetheless, in the interest of advancing prosecution of the present claims, Applicant respectfully submits that the elements and limitations of claims 68-71 can be distinguished from the Hachtman reference for at least the following reasons.

Claims 68-71 depend from independent claim 65. For the reasons stated above, Applicant respectfully submits that independent claim 65, as currently amended, is in condition for allowance in light of the Hachtman reference. That is, the Hachtman reference does not teach, suggest, or render obvious:

A stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stent-underlying portion having a distal end adapted to be positioned adjacent a distal end of the stent, a proximal end adapted to be positioned adjacent a proximal end of the stent, and a length extending from the portion distal end to the portion proximal end, the stabilizer comprising a non-inflatable inner core and at least two sets of rings extending radially outwardly from the inner core for engaging the stent inner periphery along the length of the stent-underlying portion, wherein each set of rings includes at least two rings, the rings in the first set lie along the length of the stent-underlying portion extending from the portion distal end to the portion proximal end and are spaced in a first pattern, and the rings in the second set lie at either the distal end of the stent-underlying

portion or the proximal end of the stent-underlying portion and are spaced in a second pattern that is different than the first pattern

as recited in independent claim 65, as currently amended.

As such, Applicant respectfully submits that the Hachtman reference does not teach, suggest, or render obvious each and every element and limitation of independent claim 65, as currently amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 68-71.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's below listed attorney at (612) 236-0120 to facilitate prosecution of this matter.

CERTIFICATE UNDER 37 CFR §1.8: The undersigned hereby certifies that this correspondence is being filed electronically with the U.S. Patent and Trademark Office on this 18 day of November, 2009.

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